

THE
NATURAL HISTORY
OF
BRITISH INSECTS;
EXPLAINING THEM
IN THEIR SEVERAL STATES,
WITH THE PERIODS OF THEIR TRANSFORMATIONS,
THEIR FOOD, OECONOMY, &c.
TOGETHER WITH THE
HISTORY OF SUCH MINUTE INSECTS
AS REQUIRE INVESTIGATION BY THE MICROSCOPE.
THE WHOLE ILLUSTRATED BY
COLOURED FIGURES,
DESIGNED AND EXECUTED FROM LIVING SPECIMENS.

By E. DONOVAN.

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THE
NATURAL HISTORY
OF
BRITISH INSECTS.

PLATE CCCXXV.

SPHINX TILIÆ.

LIME HAWK MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ thickest in the middle: wings deflected when at rest.
Fly flow morning and evening.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings angulated, greenish clouded with brown, two triangular olive bands across the anterior wing, tips white: posterior wings yellow brown with a transverse dark band.

SPHINX TILIÆ: alis angulatis virescenti nebulosis saturatius fasciatis,
posticis supra luteo testaceis. *Linn. Syst. Nat. 2.*

797. 3.—*Fn. Sv.* 1085.—*Fab. Ent. Syst. T. 3.*
p. 1. p. 358. Sp. 10.

Albin. Inf. tab. 10.

Roef. Inf. 1. phal. 1. tab. 2.

Schæff. Elem. tab. 116. fig. 1.

Schæff. Icon. tab. 100. fig. 1. 2.

Merian. Europ. 2. tab. 24.

Esp. Inf. 2. tab. 3.

Geoffr. Inf. 2. 80. 2.

The larva of this elegant Insect feeds on the Lime tree. In September it changes to the pupa, and the Sphinx is produced in May.—It is very common in most parts of the country.





P L A T E C C C X X V I .

P T I N U S P E C T I N I C O R N I S .

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform, the last articulation longest. Thorax roundish, with a margin into which the head is drawn back.

SPECIFIC CHARACTER.

Brown : antennæ yellowish and pectinated.

P T I N U S P E C T I N I C O R N I S : fuscus antennis luteis pectinatis. *Linn.*
Syst. Nat. p. 1.

This species differs very much from the other Insects of the *Ptinus* genus in having feathered antennæ. Geoffroy, who described it before Linnæus, called it *Ptilinus*. Linnæus placed it in his *System* in the *Ptinus* genus, and to distinguish it named it specifically *pectinicornis*. The two sexes of this Insect may be distinguished by the form of the antennæ; those of the female are but slightly pectinated, that which we have figured is the male having large feathered antennæ.

This creature lives in decayed wood.



PLATE CCCXXVII.

FIG. I.

PHALÆNA LEPORINA.

MILLER OF MANSFIELD MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings deflected, white, sprinkled with ramose black spots: abdomen immaculate.

PHALÆNA LEPORINA: alis deflexis albis : punctis ramosis, abdomine immaculato. *Linn. Syst. Nat.* 2. 838. 9. *Fn. Sv.* 1176.—*Fab. Ent. Syst. T.* 3. p. 1. p. 453. 144. *Degeer. Inf.* 1. tab, 12. fig. 10. 11. 17. *Fuesl. Magaz.* 2. tab. 1. fig. 1—3.

We cannot account for the very absurd name English Aurelians have given to this Insect. It probably originated in some trivial event, which has been long since forgotten, but as the Insect will be

better known by that name than any other we could adopt, it is thought most advisable to retain it.

This Moth is uncommonly scarce in Great Britain. The larva is of a pale or greenish white colour with three longitudinal stripes of brown and a few black bars across. It feeds on the Willow and Alder. Four of those larvæ were taken in the wood of Darent, 1793: and one of them was reared to the winged state.

FIG. II.

PHALÆNA ALNI.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax crested: anterior wings brown with two broad spaces of grey, divided by a transverse dark bar, and a kidney-shaped spot in the middle: posterior wings whitish with a marginal row of brown spots, and pale brown apex.

PHALÆNA ALNI: cristata alis deflexis fuliginosis: areis duabus cinerascens prior puncto marginali nigro.
Linn. Syst. Nat. 2. 845. 134.—*Fab. Ent. Syst.*
T. 3. p. 2. sp. 89.

Noctua Degener. *Wien. Verz.* 70. 4.—*Degeer. Inf.* 1. tab. 11.
fig. 25. 28.

One of the rare English species of *Phalæna* known amongst collectors by the general name of Portland Moths, having been first discovered and introduced to notice as natives of this country by the late Dutchess Dowager of Portland.

FIG.

F I G. III.

P H A L Æ N A D I P S A C E A.

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S.

Thorax smooth: anterior wings pale clay colour, with a broad brown ramose bar across: posterior pair black, with an irregular pale oblique bar, and double spot of the same near the posterior margin.

P H A L Æ N A D I P S A C E A: lævis alis deflexis pallidis: fascia lata fusca, posticis albo nigroque variis. *Lin. Syst. Nat.* 2. 856. 185.—*Fab. Ent. Syst. T.* 3. p. 2. p. 33. *sp.* 83.
Wien. verz. 89. 3.

Hitherto considered as a scarce or at least very local species. Dr. Latham found it in great abundance in a clover field near Dartford, Kent. The larva is described; it is red with broken or interrupted white lines and a cinereous head. It feeds on the *Centaurea*, Plantain and *Tragopogon*.



P L A T E CCCXXVIII.

P H A L Æ N A F A G I.

LOBSTER MOTH.

LEPIDOPTERA.

G E N E R I C C H A R A C T E R.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

S P E C I F I C C H A R A C T E R

AND

S Y N O N Y M S.

Wings reversed, reddish ash colour, with two incurvated yellowish lines across the first pair.

P H A L Æ N A F A G I : alis reversis rufo cinereis : fasciis duabus lineari-
bus luteis flexuosis. *Linn. Syst. Nat.* 2. 816. 30.

— *Fn. Sv.* 113. — *Fab. Ent. Syst.* T. 3. p. 1.
p. 422. sp. 51.

Albin. Inf. tab. 53.

Wien. Verz. 63. 2.

Roef. Inf. 3. tab. 12.

Act. holm. 1749. 132. tab. 4. fig. 10. 14.

The trivial name of Lobster Moth, which this species has acquired from the singular form of its larva, cannot be unfamiliar to the English Aurelian, though the Moth itself is in the possession of few. The larva

was

was figured and described by Albin, and collectors about the middle of the last century occasionally met with it in the woods near London, which have been since destroyed. At that time it was however scarce, and being difficult to rear, the Moth has always been deemed one of the most valuable British species of the Lepidoptera tribe.

An old collector at Hoxton once informed us, that the larva of this Insect was called the BREECHES Caterpillar about fifty years ago; that it was in great request by most collectors of his time, and that he deemed himself fortunate in finding two specimens of it in the course of his life, though he had not reared either. Those were taken on some Chesnut trees which grew at that time in St. George's fields. The late Mr. Bentley found it once on the Beech, and Mr. Francillon has a specimen of it in his cabinet, which he met with himself. Our figures are copied from Mr. Francillon's specimen, and the drawings Roefel has given of it in his History of the Insects of Germany.





P L A T E C C C X X I X .

S P H E X A P P E N D I G A S T E R .

S M A L L - B O D I E D I C H N E U M O N W A S P .

H Y M E N O P T E R A .

G E N E R I C C H A R A C T E R .

Mouth armed with jaws, no tongue. Antennæ consist of ten articulations. Wings extended, without folds, and laid horizontally upon the back. Sting sharp and pointed, and concealed within the abdomen.

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S .

Black. Abdomen small, joined to the thorax by a footstalk. Posterior legs very long.

S P H E X A P P E N D I G A S T E R : atra abdomine petiolata brevissimo, pedibus posticis longissimis. *Linn. Syst. Nat.* 2. 945. 12.—*Gmel. Linn. Syst. Nat.* p. 2723. 245. *sp.* 12.

E V A N I A A P P E N D I G A S T E R : atra abdomine petiolato brevissimo dorso thoracis imposito, pedibus posticis longissimis. *Fab. Ent. Syst. T.* 2. 141. 1.
Degeer. Inf. 3. 394. *tab.* 30. *fig.* 14.
Reaum. Inf. 6. *tab.* 31. *fig.* 13.

The novelty of this creature will be immediately obvious to those in the slightest degree acquainted with the hymenopterous tribes of Insects. At first sight it has the exact appearance of an Insect deprived of the body, for the abdomen is extremely small in proportion to the other parts, and so much recurved or bent under the posterior part of the thorax as to be scarcely visible.

It is not more remarkable for its singularity than rarity, for we have ventured to introduce it as an English Insect on one authority only.—A specimen of it was lately taken by the Rev. James Coyte of Ipswich, in Suffolk. We have it from the South of Europe.



P L A T E C C C X X X .

P H A L Æ N A A C E R I S .

S Y C A M O R E M O T H .

L E P I D O P T E R A .

G E N E R I C C H A R A C T E R .

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S .

Thorax crested: wings deflected, grey, undulated with black, and a black dagger-like mark at the base of the anterior pair.

P H A L Æ N A A C E R I S : cristata alis deflexis canis nigro undatis, abdomine subtus basi brunneo. *Linn. Syst. Nat.* 2. 846. 137.—*Fn. Sv.* 1179.—*Fab. Ent. Syst. T.* 3. p. 2. p. 107. sp. 322.
Wilks pap. 32. tab. 2. c. 6.
Reaum. Inf. 1. tab. 34. fig. 11.
Frisch. Inf. 1. tab. 5.

The larva of this species feeds on the Sycamore, it becomes a pupa late in August, and appears in the winged state in June.

Another

Another Moth very analogous to this species is known amongst English collectors by the name of Sycamore likeness ; it is exceedingly similar in its colour and marks, but is destitute of the small dagger-form black spot which is situated near the base of the anterior wings in *Phalæna-Aceris*.







P L A T E CCCXXXI.

P H A L Æ N A D E L P H I N I I.

PEASE-BLOSSOM MOTH.

LEPIDOPTERA.

G E N E R I C C H A R A C T E R.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

S P E C I F I C C H A R A C T E R

AND

S Y N O N Y M S.

Thorax crested. First pair of wings purple with two broad transverse whitish bars, second pair pale brown.

P H A L Æ N A D E L P H I N I I: cristata alis deflexis purpurascentibus: fasciis duabus albidis, posticis obscuris. *Linn. Syst. Nat.* 2. 857. 188.—*Fab. Ent. Syst. T.* 3. p. 2. p. 90. *sp.* 267.
Geoff. Inf. 2. 164. 109.
Merian. Europ. 1. tab. 40.
Roef. Inf. 1. *phal.* 2. tab. 12.
Punz. Fn. Germ. 7. tab. 17.

The *Phalæna Delphinii* is extremely rare. A traditionary opinion seemed to prevail amongst the old collectors of English Insects,
B
that

that it had been taken in this country, but the fact was not clearly ascertained till within the last two years.

The late Dukes of Portland, it is confidently reported, once found a mutilated wing of some *Phalæna* hanging in a cobweb, which, from its appearance, was conjectured to have belonged to an individual of this species; but on such slender authority few were disposed to consider *P. Delphinii* as a native of Britain. From that period it remained a subject of dispute till the summer of 1799, when our worthy friend W. Jones, Esq. met with a fine specimen of it alive in his own garden at Chelsea; and thereby removed every doubt respecting it, as a British Species.

The larva feeds on the Larkspur, and is figured by Roefel together with the eggs and pupa; those figures we have copied in the annexed plate, as they render the history of this interesting Insect more complete than our limited information would otherwise permit.—The larva seems to bear some resemblance to those of *Phalæna Verbasci*, or Water Betony Moth; the colours are nearly the same, but the black spots in the former are more numerous.



PLATE CCCXXXII.

BLATTA LAPPONICA.

HEMIPTERA.

GENERIC CHARACTER.

Head inflected. Antennæ fetaceous. Elytra semicoriaceous. Thorax flat, orbicular and margined. Feet formed for running.

SPECIFIC CHARACTER.

AND

SYNONYMS.

Yellowish. A few black spots on the longitudinal ridge of the wing cases.

BLATTA LAPPONICA: flavescens elytris nigro maculatis. *Linn.*

Fn. Sv. 863.—*Gmel. Linn. Syst. Nat. p.* 2044.

Sulz. Inf. t. 3. *f.* 3.

Geoffr. Inf. par. 1. *p.* 331. *n.* 3.

We believe this is a scarce Species in Great Britain. The late Mr. Bently met with it about Epping.—It is very common in Lapland.





PLATE CCCXXXIII.

FIG. I.

PHALÆNA REPANDARIA.

THE MOTTLED BEAUTY.

GENERIC CHARACTER.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER.

Antennæ pectinated : wings grey, undulated, clouded with brown, and furrounded with a black waved marginal line.

PHALÆNA REPANDARIA : pectinicornis, alis cinereis : omnibus fusco-undatis ; posticis margine repando atro.

Phalæna repandata. *Linn. Syst.* 866. 235.—*Fn. Suec.* 1260. *Kleeman Inf.* 1. t. 14. fig. 1. 2. t. 28. f. 1.

The two Moths figured I. I. in the annexed plate are supposed to be the male and female of the same species. Taken in June, about Willows.

F I G . I I .

P H A L Æ N A C O N S O R T A R I A .

T H E P A L E O A K B E A U T Y .

S P E C I F I C C H A R A C T E R .

Antennæ feathered: wings pale greyish, waved with brown: an ocellar spot, with an oblong white pupil in the middle of the posterior wings.

P H A L Æ N A C O N S O R T A R I A : p e c t i n i c o r n i s a l i s d e n t a t i s g r i s e i s f u s c o
s t r i g o s i s : p o s t i c i s p u n c t o o c e l l a r i o b l o n g o a l b i d o .
Fab. Ent. Syst. 3. b. 137. 29.

Found on the Oak in June.





P L A T E C C C X X X I V .

P H A L Æ N A F L A V O C I N C T A .

G R E A T R A N U N C U L U S M O T H .

G E N E R I C C H A R A C T E R .

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S .

Thorax crested : wings deflected, margins dentated, first pair greyish brown, obscurely clouded and variegated with small orange-yellow spots.

P H A L Æ N A F L A V O C I N C T A : cristata alis deflexis dentatis fusco cinereoque variis fulvo punctatis. *Fab. Ent. Syst.*
T. 3. p. 2. p. 114. sp. 334.

Noctua flavocincta. *Wien. Verz.* 72. 2.

Roef. Inf. 1. phal. 2. tab. 54. 55.

The larva is supposed to feed on the black Cherry and Sloe ; on the latter of which we once found it. Its English name implies that it feeds also on some plant of the Ranunculus genus. In the winged state it is sometimes met with in gardens.

Another Insect analogous to this species has been named the small Ranunculus Moth.



PLATE CCCXXXV.

CHRYSOMELA MARGINELLA.

GENERIC CHARACTER.

Antennæ moniliform: feelers six, becoming larger towards the end: thorax marginate: wing-cafes with margin: body generally oval.

SPECIFIC CHARACTER.

Black: Head, thorax, feet, and exterior border of the wing-cafes yellowish.

CHRYSOMELA MARGINELLA: niger, capite thorace pedibus coleoptorumque limbo flavis.

A new species, taken in Coombe Wood in the month of July, by Alex. M'Leay, Esq. and the Rev. Mr. Kirby.



P L A T E CCCXXXVI.

P H A L Æ N A P I N I A R I A.

PINE MOTH.

G E N E R I C C H A R A C T E R.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S.

Antennæ feathered : upper side brown, with broad yellowish spots in the disk : beneath mottled, and clouded with two dark bars across the posterior pair.

P H A L Æ N A P I N I A R I A : pectinicornis alis fuscis flavo maculatis
subtus nebulosis : fasciis duabus fuscis. *Linn.*
Syst. Nat. 2. 861. 210.

Fn. Sv. 1233.

Fab. Ent. Syst. T. 3. p. 2: p. 141. *sp.* 45.

Clerk. phal. tab. 1. *fig.* 10.

Schæff. Icon. tab. 159. *fig.* 1. 2.

This rare and curious species of *Phalæna* has been for some years admitted in the cabinets of English Natural History, but on the most dubious authority. That it is an inhabitant of Great Britain, is

however now ascertained, for in the summer of the present year, about the last week in June, it was observed in great plenty in a fir wood at Crathis, on the north bank of the river Dee, in Mearns-shire, Scotland, by George Milne, Esq. of Surrey Place, Walworth. They seldom fly low, and are consequently taken with some difficulty.

The larva is green, streaked with white and yellow, and feeds on the Pine. Linnæus and Fabricius add the Lime and Alder also.

2



P L A T E C C C X X X V I I .

LIBELLULA VULGATA.

COMMON DRAGON FLY.

GENERIC CHARACTER.

Mouth armed with more than two jaws: lip trifold: antennæ shorter than the thorax, thin and filiform: wings expanded without folds: tail of the male furnished with forceps.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings transparent: abdomen cylindrical and reddish.

LIBELLULA VULGATA: alis hyalinis, corpore cylindrico rufo.

Linn. Syst. Nat. 2. 901. 3.—*Fn. Sv.* 1461.

Roes. Inf. 2. *Aquatic.* 2. tab. 8.

This is the most abundant species of the Libellula tribe; frequenting ditches and other watery places during summer. The colours in different specimens vary exceedingly.

FIG.

FIG. II.

LIBELLULA GRANDIS.

SPECIFIC CHARACTER.

Wings yellowish: Abdomen cylindrical, and variegated, with four yellow lines on the thorax.

Libellula fulva alis flavescentibus, thoracis lateribus lineis duabus flavis, fronte flavescente cauda diphylla. *Geoff. Inf.* 2. 227. 12.

LIBELLULA GRANDIS: alis glaucescentibus thoracis lateribus lineis quatuor flavis. *Linn. Syst. Nat.* 2. 903. 9.—*Fn. Sv.* 1467.

Libellula fusca capite rotundato, thorace lineolis quatuor transversis luteis, alis flavicantibus, abdomine cylindrico. *Degeer. Inf.* 2. 2. 45. tab. 20. fig. 6.

When the fine species of *Libellula grandis* was figured in plate 166 of this work, we were not in possession of the variety with yellow wings which Linnæus describes. It has since been discovered in the neighbourhood of Battersea, and we deem it too interesting to be omitted.

The yellow colour of the wings can by no means induce us to think it a distinct species from the variety with wings perfectly transparent, especially as the same variation is observed in most other species of the same tribe, and particularly amongst the English species, as in *flaveola*, *virgo*, and *puella*. The marks and colours of the abdomen and thorax are still more liable to variation, and can scarcely furnish any precise character for a specific difference.



PLATE CCCXXXVIII.

FIG. I.

PHALÆNA CUCULLA.

MAPLE PROMINENT MOTH.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER.

Tongue spiral: thorax crested: wings deflected: margin denticulated, yellow brown clouded with ferruginous and marked obliquely with several interrupted parallel and interwoven waved streaks. A broad white band next the exterior margin.

PHALÆNA CUCULLA: spirilinguis, cristata alis deflexis denticulatis ochraceis maculis ferrugineis, fasciaque marginali albida striis intertexta fuscis. *Linn. Syst. Nat.* 81.

This species is uncommonly rare, and has not, we believe, been figured by any author, unless *fig. 1. tab. 71. of Esper* is intended for the same insect.—It feeds on the maple.

FIG.

FIG. II.

PHALÆNA RUBAGO.

SPECIFIC CHARACTER.

Anterior wings yellow : base, costal spot, and oblique broad bar, near the apex reddish, sprinkled with points of ferruginous.

PHALÆNA RUBAGO : alis anticis flavis : basi macula costali, fascia lata obliqua punctisque ferrugineis.

A new and undescribed British species. Once found in the wood at Hornsey.

FIG. III.

PHALÆNA PAR.

KITTEN-LIKENESS MOTH.

SPECIFIC CHARACTER.

Anterior wings greyish white, with a broad clouded bar across the middle : posterior wings darkest near the exterior margin.

PHALÆNA PAR : alis anticis griseo-albidis : fascia lata nebulosa, posticis extus fuscentibus. *Marsh. Mfs.*

Sometimes found sticking against walls and trunks of trees, and is certainly an hitherto undescribed species.



P L A T E CCCXXXIX.

PHALÆNA SULPHURALIS.

MARGATE BEAUTY.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

First wings yellow, with irregular connected streaks of black spots, and detached marks of the same colour on the anterior margin: second pair brown.

Phalæna Sulphuralis. *Linn. Syst. Nat.* 2. 881. 333.

BOMBYX LUGUBRIS: alis deflexis flavis: rivulis punctisque atris, posticis fuscis. *Fab. Ent. Syst. T.* 3. p. 1. p. 467. *sp.* 188.—*Schæff. Icon. tab.* 9. *fig.* 14, 15.

A scarce insect in this country. It is said to have been first discovered at Margate, and from that circumstance was afterwards known amongst English collectors by the name of *Margate Beauty*.—Another insect, by no means similar, has however received the same name, having been met with at Margate likewise.

FIG

FIG. II.

PHALÆNA PURPURALIS,

PURPLE AND GOLD MOTH.

SPECIFIC CHARACTER

AND

SYNONYMS.

Purple, with two irregular yellow bands continued across both the upper and under wings.

PHALÆNA PURPURALIS: alis purpurascens: omnibus fasciis duabus luteis. *Linn. Syst. Nat.* 2. 883. 342.—
Fn. Sv. 1856.

Found on nettles in May.



PLATE CCCXL.

FIG. I.

PHALÆNA LAPPÆ.

THE BURDOCK MOTH.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER.

First wings ferruginous: a broad yellow clouded bar with three yellow eye-shaped spots across the middle: a yellow spot at the base, and another at the apex: second wings pale, with an obscure transverse streak.

PHALÆNA LAPPÆ: alis ferrugineis: basi stigmatibus fascia maculaque apicis flavis fusco-nebulosis, posticis pallidis striga obscura. *Marsh. Mfs.*

It feeds on the Burdock.

FIG.

FIG. II.

PHALÆNA CITRINA.

SPECIFIC CHARACTER.

Thorax crested: first wings yellowish, with two transverse bands of brown; the interior one interrupted and enclosed between two irregular whitish streaks.

PHALÆNA CITRINA alis flavescens, lineis duabus irregularibus transversis albidis, fasciis duabus fuscis, interiore interrupta.

Ernst, in the Papillons de l'Europe, *fig.* 378. gives the figure of a Phalæna not very dissimilar to our species, and probably a mere variety of it. Under this idea we have named it Citrina, from the French name La Citrinne, adopted by Ernst, for it does not appear to have been either figured or described by any other author.

This choice and beautiful Insect is one of those discovered by the late Dukes of Portland, and is in the Cabinet of Mr. Francillon.

FIG. III.

PHALÆNA CLAVIS.

SPECIFIC CHARACTER.

First wings reddish, with a paler dash along the middle, ending near a kidney eye-shaped mark and a contiguous white spot. An interrupted dark mark at the base.

PHALÆNA

PHALÆNA CLAVIS: alis fusco cinereis linea media punctoque albis,
lineola interrupta bascos maculisque fuscis.

Several varieties of this Insect appear to have been figured in the work of Ernst already quoted, but none of them agree so precisely with our specimen as to permit us to refer to his plates.—We believe it is not described by Fabricius, or any other systematic author.



PLATE CCCXLI.

BLATTA GERMANICA.

GENERIC CHARACTER.

Antennæ fetaceous : head inflected : thorax flat, orbicular, and margined : abdomen terminated in two appendices : feet formed for running.

SPECIFIC CHARACTER

AND

SYNONYMS.

Livid brown, with two black parallel lines on the thorax.

BLATTA GERMANICA : livida thorace lineis duabus parallelis nigris.
Linn. Syst. Nat. 2. 688. 9.—*Fab. Ent. Syst.* T. 2.
p. 10. *fig.* 220. *Herbst. Arch.* tab. 49. *fig.* 10.

Abundant in Germany, but very rare in this country.





P L A T E CCCXLII.

FIG. I.

PHALÆNA LICHENARIA.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ feathered: wings variegated with green and grey, and marked across with two black lines, the anterior one recurved, the posterior waved and bent in the opposite direction.

PHALÆNA LICHENARIA: pectinicornis alis viridi cinereoque variis: strigis duabus nigris; anteriore recurva, posteriore undato flexuosa. *Fab. Ent. Syst. T. 3. p. 2. p. 145. sp. 59.*

The two sexes of this Insect is figured in the annexed plate, *fig. 1. 1.*—The pectinated antennæ denote the male.

FIG. II.

PHALÆNA SPARTIATA.

BROOM MOTH.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ fetaceous: first wings deep grey with large oblong brown spots, encircled with white: second wings cinereous.

PHALÆNA SPARTIATA: feticornis alis oblongis fuscis: vitta albida, posticis cinereis. *Fab. Ent. Syst. T. 3. p. 2. p. 181. sp. 188.*

Phalæna Spartiata. *Fuesl. Arch. 2. tab. 5.*

Feeds on the broom, and is found in the winged state in June and July —It is scarce, or at least very local.

FIG.

FIG. III.

PHALÆNA UNDULATA.

SCALLOP-SHELL MOTH.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ fetaceous: wings pale, and uniformly streaked transversely with numerous scalloped lines of brown.

PHALÆNA UNDULATA: feticornis alis omnibus strigis confertissimis undulatis fuscis. *Linn. Syst. Nat.* 2. 867.

239.—*Fn. Sv.* 272.

Clerk. Inf. tab. 6. *fig.* 3.

Harr. Inf. tab. 2. *fig.* 5. 6.

Sometimes taken in Kent, particularly in Darent Wood, near Dartford. It feeds on the Willow and Oak, and appears in the winged state in June.



P L A T E CCCXLIII.

FIG. I.

PHALÆNA JANTHINA.

ORANGE UNDERWING MOTH.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night,

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax crested: first wings incumbent, grey, variegated with brown, and marks of white: second pair black with a large orange spot in the middle, and an exterior border of the same colour.

PHALÆNA JANTHINA: cristata alis incumbentibus griseis: litura albida, posticis atris: macula media margineque ferrugineis. *Fab. Ent. Syst. T. 3. p. 2. p. 59. sp. 166.*

Phalæna Janthina. *Wien. Verz. 78. 9.*

Phalæna Domiduca. *Fuessl. Arch. 3. tab. 16.*

Found in Darent Wood in the month of July. The larva is said to be white, with undulated brown streaks, and spotted next the posterior part with black.

FIG. II.

PHALÆNA ORBONA.

PALE YELLOW UNDERWING MOTH.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax crested: first wings incumbent, liver-colour, with obscure spots: second wings yellow, with a brown lunar mark in the middle, and a band of the same near the posterior margin.

PHALÆNA ORBONA: cristata alis incumbentibus hepaticis: posticis flavis; lunula strigaeque postica fuscis. *Fab. Ent. Syst. T. 3. p. 2. p. 57. sp. 158.*

This species is far less frequent than the *Phalæna Pronuba*, to which, at first glance, it bears some resemblance. Fabricius describes it as a native of Germany, and it does not occur in the Works of any Author as a British Insect.

FIG. III.

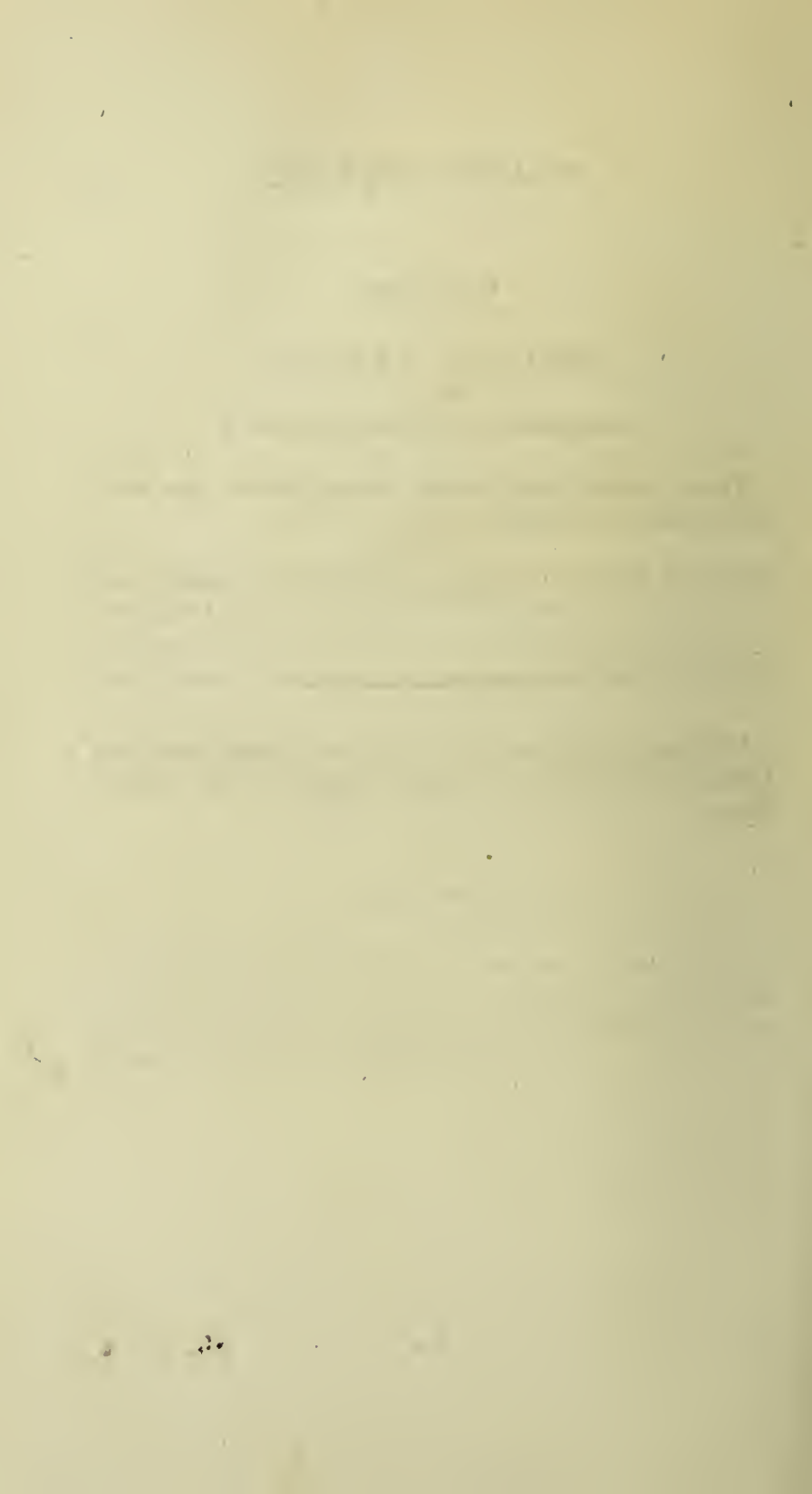
PHALÆNA ARBUTI.

SPECIFIC CHARACTER.

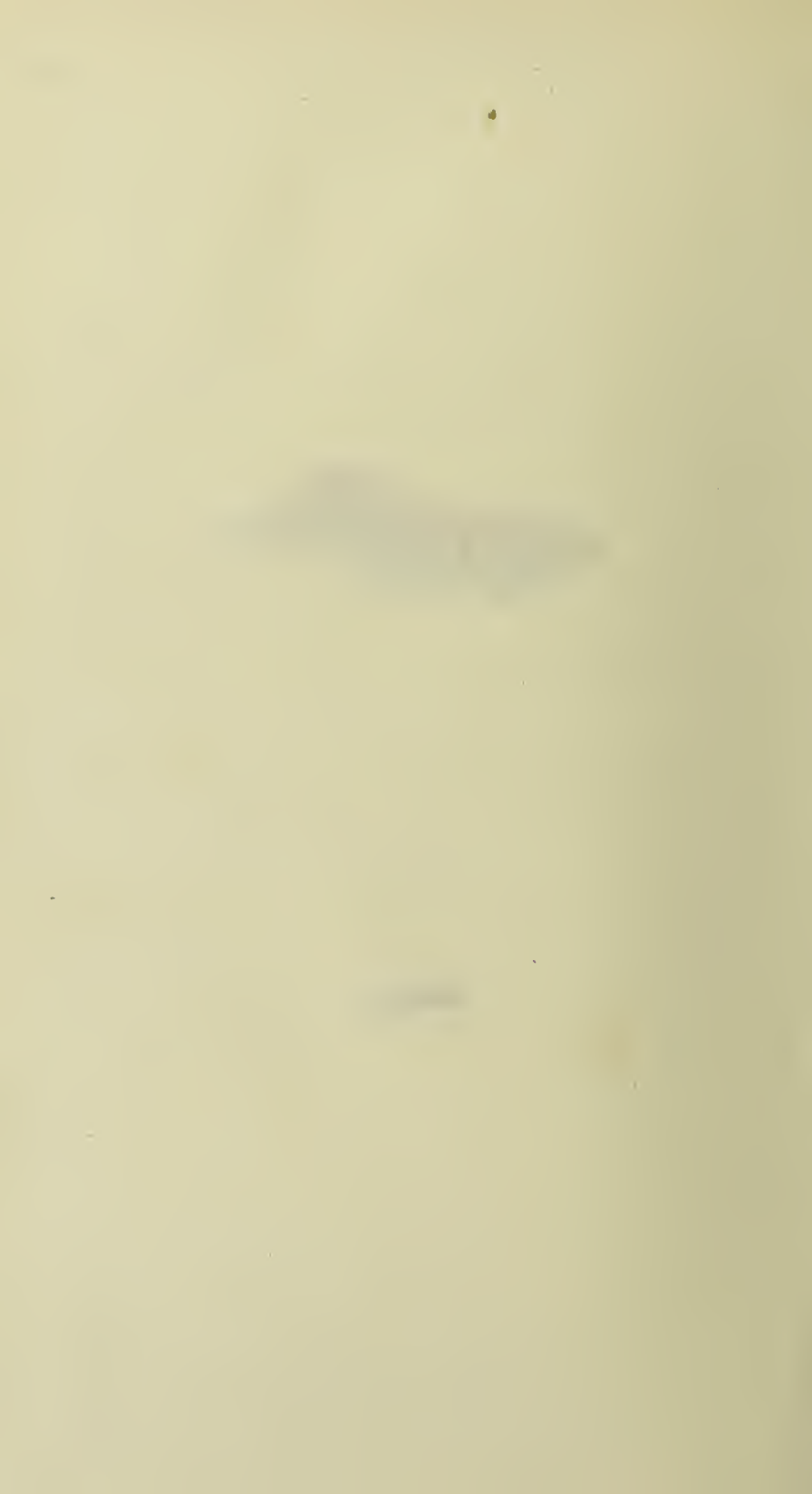
Thorax crested: wings deflected, brown; posterior pair black, with a yellow band across the middle.

PHALÆNA ARBUTI: cristata alis deflexis fuscis: posticis nigris flava. *Fab. Ent. Syst. T. 3. p. 2. p. 126. pp. 380.*

Described by Fabricius in his last Work as an English Insect, from which we may infer, that it is not common in other parts of Europe.







P L A T E CCCXLIV.

JULUS COMPLANATUS.

GENERIC CHARACTER.

Feet numerous: twice as many on each side as the segments of the body: antennæ moniliform: palpi two, articulated, body femi-cylindrical.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ clavated: legs on each side about 30? body flat: tail acute.

JULUS COMPLANATUS: pedibus utrinque 30, corpore planiusculo, antennis clavatis. *Linn. Syst. Nat.* 2. 1065. 4.
—*Fn. Sv.* 2068.

JULUS COMPLANATUS: pedibus utrinque 30, corpore planiusculo, cauda acuta. *Fab. Ent. Syst.* 2. p. 393:

Fabricius as well as Linnæus considers the number of feet as an essential part of the specific character throughout this genus. Both are certainly mistaken in assigning thirty feet to each side of this creature. Degeer mentions thirty-one; and in an unmutated specimen we have, two legs may be perceived at every joint except those nearest the head. The body is flat, the shields slightly scabrous, and the antennæ clavated, the last we deem more characteristic than the number of the feet.

This very curious creature is local, being rare in most places.



2

3

P L A T E CCCXLV.

FIG. I.

PHALÆNA GRANDIS.

GREY ARCHES MOTH.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by Night.

SPECIFIC CHARACTER.

Wings whitish, variegated black streaks: stigma waved large and subocellar; and a black character in the posterior angle of the wing,

PHALÆNA GRANDIS: alis albicantibus nigro-varie undatis: stigmatibus magnis subocellaribus, litura prope angulum posticum nigrum.

An Insect well known amongst English collectors by the name of Grey Arches Moth, from the characteristic arched double lines across the superior wings. It is altogether unnoticed by Linnæus or Fabricius, though figured by Sepp. vol. ii. *tab.* 27. It is esteemed a scarce species in this country.

FIG. II. III.

PHALÆNA SPINULA.

SPECIFIC CHARACTER.

Wings variegated brown and grey, with obscure spots and streaks; and three distinct black pointed characters near the apex.

PHALÆNA SPINULA: alis fusco cinereis maculis strigisque obscuris lituris tribus acutiusculis distinctis nigris ad apicem.

The specimens, *fig. 2* and *3*, appear at the first view two very distinct Insects; yet on the most attentive comparison of the characteristic marks, we are inclined to consider them as the two sexes of the same species, notwithstanding the dissimilarity of their colours in general. The kind represented at *fig. 2*, and which from its setaceous antennæ is evidently the female, has been placed in English cabinets as a species somewhat analogous to the *Phalæna Exoleta*, or Sword-blade Moth, under the trivial appellation of the *scarce* Sword-blade Moth. The other, which from the pectinated structure of its antennæ, is obviously the male, is equally uncommon.

We have observed several figures of this species differing only in colour in the works of Ernst, and one in particular nearly corresponding with that represented in the annexed plate at *fig. 2*, which he calls *spinula*; a name we have ventured to adopt, as the Insect is neither described by Linnæus nor Fabricius.





P L A T E CCCXLVI.

F I G. I.

MUSCA GROSSA.

GREAT BLACK FLY.

DIPTERA.

GENERIC CHARACTER.

A soft flexible trunk, with lateral lips at the end. No palpi.

SPECIFIC CHARACTER

AND

SYNONYMS.

Body hairy, black : wings ferruginous at the base.

MUSCA GROSSA : pilosa nigra, alis basi ferrugineis. *Linn. & Gmel.*

T. 1. p. 5. p. 2845. sp. 75.

Fn. Suec. 1837.

Fab. Sp. Inf. 2. p. 441. n. 30.

Schæff. Icon. tab. 108. fig. 6.

Degeer. Inf. 6. p. 21. n. 1. tab. 1. fig. 1.

The largest of the Musca genus found in this country. Breeds in dung.

F I G.

F I G. II.

MUSCA BICINCTA.

DOUBLE BELTED FLY.

GENERIC CHARACTER.

Black : fides of the thorax and two belts across the abdomen yellow.

MUSCA BICINCTA: nigra, antennis elongatis, thorace lateribus punctis abdomineque cingulis duobus flavis.

Linn. a Gmel. T. 1. p. 5. p. 2872. sp. 38.

Fab. Sp. Inf. 2. p. 427. n. 30.

Degeer. Inf. 6. p. 126. n. 16. t. 7. fig. 16.

F I G. III.

MUSCA VIBRANS.

VIBRATORY FLY.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings transparent, black at the tip : head red.

MUSCA

MUSCA VIBRANS: alis hyalinis apice nigris capite rubro.

Linn. a Gmel. T. 1. p. 5. p. 2855. sp. 112.

Fab. Sp. Inf. 2. p. 450. n. 81.

Degeer. Inf. 6. p. 32. n. 11. t. 1. fig. 19.

Geoffr. Inf. p. 2. p. 494. n. 4.

Remarkable for the continual vibratory motion of its wings.

FIG. IV.

MUSCA NOCTILUCA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Somewhat hairy, black; two pellucid spots on the first segment of the abdomen.

MUSCA NOCTILUCA: subtomentosa atra, abdominis segmento primo maculis duabus pellucidis. *Linn. a Gmel.*

T. 1. p. 5. p. 2874. sp. 48.

Faun. Succ. 1814.

Fab. Sp. Inf. 2. p. 431. n. 54.

FIG. V.

MUSCA SCYBALARIA.

SPECIFIC CHARACTER.

Reddish brown, an obscure dot in the Wings.

MUSCA SCYBALARIA: rufa ferruginea, alis puncto obscuriore.

Linn. a Gmel. T. 1. p. 5. p. 2853. sp. 104.

Faun. Succ. 1860.

Fab. Sp. Inf. 2. p. 449. n. 72.

Scop. Carn. 896.

Found on Dung.



PLATE CCCXLVII.

FIG. I.

PHALÆNA APRILINA,
SCARCE MERVEILLE DU JOUR MOTH.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by Night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax crested: wings deflected, green: a black mark and transverse band; and a single row of black triangular dots near the apex.

PHALÆNA APRILINA: cristata alis deflexis viridibus: macula fasciæque atris apice punctorum trigonum serie unica. *Fab. Ent. Syst. T. 3. p. 2. p. 103. sp. 306.*

PHALÆNA runica *Linn.*

Linnæus has made some confusion between the two species of *Phalæna* *Aprilina* and *runica* in several of his works. In the last edition by Gmelin, our Insect stands as the *P. runica*; and in the *Entomologia Systematica* of Fabricius, which we have in this instance preferred, it is *Phalæna Aprilina*.

The

The English Entomologist is indebted to the assiduity of the late Dukes of Portland for the discovery of this extremely rare species in England. It feeds on the Oak.

F I G. II.

P H A L Æ N A P I N A S T R I.

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S.

Thorax crested: wings deflected, blackish: oblique broad space along the exterior margin grey.

P H A L Æ N A P I N A S T R I : cristata alis deflexis nigris: margine tenuiori anguloque ani obscure cinereis. *Linn. Syst. Nat.* 2. 851. 160. *Fab. Ent. Syst. T.* 3. p. 2. p. 101. *Sp.* 302.

Not so rare as the preceding but still much esteemed by the English Entomologist.—Feeds on the Pine.

FIG. III.

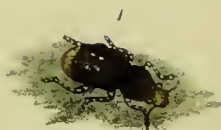
PHALÆNA GEMINA.

SPECIFIC CHARACTER.

First wing greyish brown, with two transverse broad bands and two connected white spots, and a minute dot in the middle.

PHALÆNA GEMINA: spirilinguis cristata, alis superioribus cinereo-fuscentibus, fasciis duabus strigosis maculisque daubus niveis intermediis. *Beckwith's paper in Transf. Linn. Soc. Vol. 2. p. 4:*

The larva is of a pale yellow with a red head. It feeds on the Poplar, and about the beginning of October encloses itself between two leaves, which it unites at the edges by means of many strong threads, and becomes a pupa. The Moth bursts forth about the end of May or beginning of June.



P L A T E CCCXLVIII.

F I G. I.

CURCULIO LATIROSTRIS.

GENERIC CHARACTER.

Antennæ clavated, seated on the snout, which is horny and prominent: feelers four and filiform.

SPECIFIC CHARACTER

AND

SYNONYMS.

Snout short, broad, and flattish. Wing-cases brown, with two black spots: apex white.

CURCULIO LATIROSTRIS: rostro latissimo plano, elytris apice albis: punctis duobus nigris. *Linn. a Gmel.*
T. 1. p. 4. p. 1783. sp. 360.

FIG. II.

CURCULIO PARAPLECTICUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Cylindrical, yellowish brown: wing-cafes terminated in an acute point.

CURCULIO PARAPLECTICUS: cylindricus subcinereus, elytris mucronatis. *Fu. Sv.* 604.—*Linn. a Gmel. T.* 1. *p.* 4. *p.* 1750. *fp.* 34.—*Schæff. Icon. t.* 44. *fig.* 1.

FIG. II.

CURCULIO ALBINUS.

SPECIFIC CHARACTER.

Black, front of the head and tip of the wing-cafes white: thorax tuberculated.

CURCULIO ALBINUS: niger, fronte anoque albis, thorace tuberculato. *Gmel. a Linn. T.* 1. *p.* 4. *p.* 1783. *fp.* 79.

This, as well as the two preceding species is very rare.

PLATE



P L A T E CCCXLIX.

FIG. I.

PHALÆNA DOLABRARIA.

SCORCHED WING MOTH.

GENERIC CHARACTER

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings yellow, with numerous ferruginous transverse streaks, anal angle violet.

PHALÆNA DOLABRARIA: alis flavis: strigis ferrugineis anguloque ani violaceo. *Linn. Syst. Nat. T. 1. p. 4. p. 2451. Fab. sp. Inf. 2. p. 245. n. 21. sp. 207.*

F I G . I I .

P H A L Æ N A U R T I C A T A .

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S .

Antennæ like a bristle: wings white, with bands of brown spots: thorax and tail yellow.

P H A L Æ N A U R T I C A : feticornis alis albis fusco fasciato-maculatis, thorace anoque flavis. *Linn. Syst. Nat.* 2. 873. 272.

Fab. Ent. Syst. T. 3. p. 2. p. 209. *sp.* 299.

Roes. Inf. 1. *phal.* 4. *tab.* 14.

Degeer. Inf. 1. *tab.* 28. *fig.* 18. 19.

Geoffr. Inf. 2. 135.

The larva conceals itself in a kind of cylinder, which it forms by rolling up the edges of the nettle leaves on which it feeds. It is whitish, with a dark dorsal line, head black, and two spots of the same colour on the segment next the head.

FIG. III.

PHALÆNA LYNCEATA.

SPECIFIC CHARACTER.

Wings white, with two brown transverse bands, and a brown spot near the apex.

PHALÆNA LYNCEATA: alis albis: fasciis duabus punctoque apicis fuscis. *Fab. spec. Inf.* 2. p. 262. n. 129. *Gmel. Linn. Syst.* 2478.

This Insect, though very common in our woods, was unknown to Fabricius before his visit to Great Britain; he first described it in the *Species Insectorum*, under the specific name of *Lynceata*, and as an English Insect: it has since appeared in his other publications, and has been inserted by Gmelin in the last Edition of the *Systema Naturæ*.

The Linnean description of *P. ocellata* coincides so nearly with this Insect, that we may doubt the propriety of separating them; they are probably varieties only of the same Species.

It is very common in June.



PLATE 100

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PLATE CCCL.

FIG. I.

PHALÆNA DROMEDARIUS.

IRON PROMINENT MOTH.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings deflected, clouded, a large tufted dentation at the posterior margin: base yellowish.

PHALÆNA DROMEDARIUS: alis deflexis: anticis nebulosis dorso dentatis: litura baseos anique flavescens.
Linn. Syst. Nat. 2. 237, 62.—*Fab. Ent. Syst.*
T. 3. p. 1. p. 444. sp. 113.
Ammiral. Inf. tab. 14.

FIG. II.

PHALÆNA CHRYSOGLOSSA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax crested: first wings somewhat falcated or hooked, greyish, with three streaks, and two kidney-shaped spots in the middle.

PHALÆNA CHRYSOGLOSSA: spirilinguis cristata, [alis superioribus griseis subfalcatis strigis tribus albis primoribus abbreviatis. *Linn. Transf. Vol. 2. 1. p. 6.*

One of the rare species of *Phalæna*, described by the late Mr. Beckwith in the Linnæan transactions. The larva is remarkably slender, and of a green colour; it was found upon the fallow near Brent-Wood on the 18th of June, went into the earth about a week after, and the Moth was produced on the 24th of July.

FIG. III.

PHALÆNA RUBRICOLLIS.

RED-NECKED MOTH,

SPECIFIC CHARACTER.

Black, collar crimson: end of the abdomen yellow.

PHALÆNA RUBRICOLLIS: atra, collari fanguineo, abdomine flavo.
Linn. a Gmel. T. 1. p. 4. p. 2446. sp. 113.
Schaff. Icon. t. 59. f. 8. 9.

This singular creature was found in Coombe Wood in the month of June. The larva is hairy, dark, striped with black, and has a white triangular mark on the head. It feeds on the pine, beech, &c.



1

2



P L A T E CCCLI.

FIG. I.

CICINDELA SYLVATICA.

GENERIC CHARACTER.

Antennæ fetaceous: feelers six, filiform; the posterior ones hairy; mandible prominent, armed with many teeth: eyes prominent: thorax rounded, margined, narrower than the head.

SPECIFIC CHARACTER.

Black: a white waved band, and two dots of the same colour on the wing-cases.

CICINDELA SYLVATICA: nigra, elytris fascia undata punctisque duobus albis. *Linn. Gmel. T. 1. p. 4. p. 1922. sp. 8.*

Cicindela atra, coleopteris maculis sex albida fasciaque albis. *Faun. Suec. 1. n. 549.*

Cicindela supra nigra, subtus viridis nitida, &c. *Degeer. Inf. 4. p. 114. t. 4. f. 7.*

A very scarce English Insect.

FIG.

FIG. II.

CICINDELA AQUATICA.

SPECIFIC CHARACTER

Shining, bronzed, head striated.

CICINDELA AQUATICA: ænea nitida, capite striato. *Linn. a Gmel.*
T. 1. p. 4. p. 1925. sp. 14.—Fn. Sv. 752.

CICINDELA PUSILLA. *Schreb. Inf. 6.*

Buprestis fusco-æneus. *Geoff. Inf. p. 1. p. 157. n. 31.*

Extremely common among rushes in watery places.



P L A T E CCCLII.

FIG. I.

PHALÆNA DIVES.

BROCADE MOTH.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by Night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings brown: base, central spot and broad transverse bar behind grey; a black line at the base, a bidentated dark line along the apex, and a black mark near the posterior margin.

PHALÆNA DIVES: alis fuscis: basi stigmatibus fasciaque postica bidentata cinereis, linea bascos alteraque posteriori nigris.

An undescribed species, known by the English name of Brocade Moth.

FIG. II.

PHALÆNA TRIMACULA.

SPECIFIC CHARACTER.

Wings cinereous clouded with brown; base, apex and a broad transverse bar across the middle white.

PHALÆNA

PHALÆNA TRIMACULA: alis cinereis nigro-nebulosis: basi pallidiores, fascia lata apiceque albis.

This seems to be no other than the Bombyx trimacula of the Vienna catalogue, *Wien. Verz.* 59. No. 4. and the B. trifascia of Esper, p. 242. t. 46. fig. 1—2; a species unnoticed in the Entomologia Systematica of Fabricius.

This is one of the rare Insects discovered by the late Ducheſs of Portland.

FIG. III.

PHALÆNA FLAVICORNIS.

YELLOW-HORNED PHALÆNA.

SPECIFIC CHARACTER

AND

SYNONYMS.

First wings greyish tinged with yellow, and marked transversely with three black streaks: antennæ yellow.

PHALÆNA FLAVICORNIS: alis primoribus cinereis: strigis tribus atris, antennis luteis. *Fn. Sv.* 1204.—*Linn. Syst. Nat. a Gmel. T. 1. p. 5. p. 2575. sp. 182.*
—*Fab. spec. Inf. 2. p. 238. n. 140.*

A scarce Moth, said to feed on fruit-trees.—Cabinet of A. M^cLeay, Esq.

P L A T E



2



PLATE CCCLIII.

FIG. I.

LEPTURA NIGRO-LINEATA.

BLACK-STREAKED WASP BEETLE.

GENERIC CHARACTER.

Antennæ fetaceous, feelers four and filiform: wing-cafes tapering towards the tip: thorax flender and rounded.

SPECIFIC CHARACTER.

Braffy-black, wing-cafes yellow, with three interrupted longitudinal lines of black.

LEPTURA NIGRO-LINEATA: nigro-ænea elytris flavis: basi lineisque tribus longitudinalibus interruptis nigris.
Marfb. Mf.

A very rare and curious species.—In the collection of Mr. Francillon.

FIG.

F I G . I I .

L E P T U R A S E X - M A C U L A T A .

S I X S P O T W A S P B E E T L E .

S P E C I F I C C H A R A C T E R .

Black: wing-cafes testaceous or yellowish, with three black spots connected at the outer margin on each.

L E P T U R A S E X - M A C U L A T A : nigra, coleoptris testaceis: maculis sex nigris margine connexus. *Gmel. a Linn.*

T. 1. p. 4. p. 1871. sp. 11.

Fab. Sp. Inf. 1. p. 248. n. 16.

Leptura testaceo maculata.—*Degeer. Inf. 5. p. 133. n. 9.*

Uncommon in Great Britain. In our specimen, the anterior black mark on the wing cafes is interrupted, and appears like two distinct spots.



P L A T E CCCLIV.

FIG. I.

PHALÆNA RUNICA.

COMMON MERVEILLE DU JOUR MOTH.

GENERIC CHARACTER

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax crested: first wings greenish with black marks; and a row of triangular spots behind.

PHALÆNA RUNICA: cristata alis deflexis: anticis virescentibus, maculis variis atris, postice utrinque punctis triangularis. *Fab. Ent. Syst. Nat. T. 3. p. 2. p. 102. sp. 305.*

PHALÆNA APRILINA. *Linn. Syst. Nat. a Gmel, p. 2561. sp. 1123.*

The two black semicircles on the thorax and double row of triangular spots at the ends of the posterior wings, are mentioned as peculiar characters of this species; the latter is, however, liable to considerable variations, the spots being in general, crowded in a confused series, and forming an irregularly interrupted line. It may be easily distinguished from *Phalæna Aprilina* by its superior size, the colours are less vivid, and it is destitute of the broad transverse bar, which is conspicuous on the upper wings of *Phalæna Aprilina*.

The larva is smooth, of an ash colour with square brownish spots. It feeds on the Oak.

F I G. II.

P H A L Æ N A L U S O R I A.

S P E C I F I C C H A R A C T E R

AND

S Y N O N Y M S.

Thorax crested: wings incumbent, greyish; a black lunar mark, with a small approximate point in the middle of the first pair, and triangular spot of the same colour on the anterior part of the thorax.

PHALÆNA LUSORIA: cristata alis incumbentibus glaucis: lunula thoraceque antice atris. *Linn. Syst. Nat.* 2. 831. 74.—*Fab. Ent. Syst. T.* 3. p. 2. p. 64. *sp.* 179

Phalæna Lusoria: alis primoribus glaucis: lunula thoraceque anteriorius ferrugineis. *Gmel. Linn. Syst. Nat. T.* 1. p. 5. p. 2441. *sp.* 74.

From the collection of Mr. Francillon.

P L A T E



PLATE CCCLV.

FIG. I.

PHALÆNA FRANCILLANA.

GENERIC CHARACTER.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER.

Pale yellow, with two oblique brown streaks on the superior wings.

PHALÆNA FRANCILLANA: alis pallide flavis: strigis duabus brunneis. *Fab. Ent. Syst. T. 3. p. 2. p. 264. sp. 94.*

Fabricius, when in England, named this elegant little nondescript Francillana, in compliment to Mr. Francillon, whose exquisite collection of Insects afforded him such ample assistance in completing his *Species Insectorum* and *Entomologia Systematica*; and we are happy

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in

in the opportunity to perpetuate the name, as a small acknowledgment for the confidential freedom with which its worthy owner has at all times permitted us to describe and copy whatever that cabinet might happen to possess exclusively.—The specimen is in the Collection of Mr. Francillon.

FIG. II.

PHALÆNA LITTERANA.

SPECIFIC CHARACTER.

Wings rhombiform: first pair green, with little elevated tufts and black characters.

PHALÆNA LITTERANA: alis rhombeis: anticis viridibus: characteribus atris. *Linn. Syst. Nat.* 2. 876. 288.—
Fab. Ent. Syst. T. 3. p. 2. *sp.* 271.

Not unlike *Phalæna Squamana*, figured in a former part of this Work, except in the black characteristic marks on the superior wings.—This is a very rare and beautiful little creature.

FIG.

FIG. III.

PHALÆNA CYNOSBANA.

SPECIFIC CHARACTER.

Anterior wings dark brown, white at the tips.

PHALÆNA CYNOSBANA: alis anticis fuscis apice albis. *Fab.*

PYRALIS CYNOSBANA. *Fab. Ent. Syst. 3. b. 283. 167.*

Tinea Cynosbatella. *Linn. Syst. Nat. 887. 368.—Fn. Sv. 1397.*

Linnæus, and after him Fabricius, refers to the works of De Geer and Merian for figures of this Insect, neither of which are in our opinion sufficient authorities; that of De Geer is in particular miserable, and so far from leading to ascertain the species, may mislead us as to the identity of its genera. Some years since, this Insect was deemed a nondescript by English collectors, and named in compliment to a much respected *Aurelian Beckwithiana*; but agreeing as it does in all respects with the Linnæan *Cynsbanana*, we must unavoidably reject that name, though generally adopted, and assign it that by which Linnæus had previously distinguished it.

It is very common, and according to Linnæus breeds in the buds of roses.

FIG. IV.

PHALÆNA EVONYMELLA.

WHITE ERMINE MOTH.

SPECIFIC CHARACTER.

Wings white, with about fifty black points.

Tinea, with white upper wings and black points; inferior wings brown.—Tinea alis superioribus albis: punctis nigris, inferioribus fuscis *Geoff. Inf.* 2. 183. 4.

PHALÆNA EVONYMELLA: alis anticis niveis: punctis 50 nigris.

Linn. Syst. Nat. 2. 885. 350.

Fn. Sv. 1363.

Fab. Ent. Syst. T. 3. p. 2. 289. 12.

Linnæus considered the two species of Ermine Moths, *Padella* and *Evonymella*, sufficiently characterised by the number of black spots on the superior wings. To the first he assigns twenty, and to the latter fifty on each wing.

Those who have attended particularly to those species are aware, that the number of spots are by no means constant, and may have frequently observed even more spots on one wing than the other in the same individual, as occurs in the specimen we have figured. This has occasioned some confusion between the two species, and we expressed some doubts respecting them in the description of one of the earliest

earliest plates in this work. Since that time we have had more opportunities of ascertaining the two kinds, and have no hesitation in admitting them as two species. Not that the variation in the number of spots will allow us to admit the definition of Linnæus unconditionally. It may be said that those on the *P. Padella* are about twenty, and those on the *P. Evonymella* sometimes amount to fifty or more, and the colour of the superior wings is lighter in the latter than the former.

In admitting this, the name *Evonymella* adopted in the ninth plate, must be changed to *Padella*: and the Insect before us be considered as the true *Evonymella*

F I G . V .

P H A L Æ N A F A L C A T E L L A .

T R I A N G L E - M A R K E D L I G H T H O O K - T I P .

S P E C I F I C C H A R A C T E R .

Wings hooked at the apex, whitish, decussated with obscure bars, and a large triangular brown spot on the posterior margin.

P H A L Æ N A F A L C A T E L L A : alis falcatis albis : fasciis obscuris decussatis maculaque magna trigona marginis tenuioris fusca.

Very scarce and undescribed.



P L A T E CCCLVI.

ELATER FERRUGINEUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: palpi four: an elastic spine at the extremity of the thorax on the under side, by means of which it springs up when placed on the back.

SPECIFIC CHARACTER.

Thorax and wing-cases ferruginous: body and posterior margin of the thorax black.

ELATER FERRUGINEUS: thorace elytrisque ferrugineis, corpore thoraceque margine posteriore nigris. *Linn. a Gmel. T. 1. p. 4. p. 1906. sp. 20.*

Scarce. From the collection of Mr. Francillon.

FIG. II.

ELATER PECTINICORNIS.

SPECIFIC CHARACTER.

Above greenish with a dull brassy gloss: antennæ of the male large and pectinated.

ELATER PECTINICORNIS: thorace elytrisque æneis, antennis maris pectinatis. *Linn. Gmel. T. 1. p. 4. p. 1909. sp. 32.*

The elegant antennæ of this Insect is very characteristic. It is not an uncommon species.



P L A T E CCCLVII.

FIG. I.

PHALÆNA BENTLEIANA.

GENERIC CHARACTER.

Antennæ taper from the base : wings in general deflected when at rest. Fly by Night.

SPECIFIC CHARACTER.

Reddish brown, with numerous streaks and dots of silvery yellow.

PHALÆNA BENTLEIANA : alis fusco ferrugineis : strigis punctisque numerosis argenteo-flavis.

As no Insect has yet appeared to record the memory of that indefatigable collector of English Insects, Mr. Bentley, we are induced to assign his name to this beautiful and hitherto nameless Species—It is extremely scarce.

FIG. II.

PHALÆNA ILICANA.

SPECIFIC CHARACTER.

Anterior wings greyish brown, with brown spots, a solitary black spot in the middle.

PHALÆNA

PHALÆNA ILICANA : alis anticis fusco-cinereis : punctis fuscis ;
centrali solitario atro. *Fab. Ent. Syst.* 3. b. 266,
100.

Fabricius describes this as an English Insect. It is rare, and not hitherto figured.

FIG. III.

PHALÆNA BIFASCIANA.

SPECIFIC CHARACTER.

Anterior wings testaceous, with two whitish bands, and four distinct undulated streaks and spots of black.

PHALÆNA BIFASCIANA : alis anticis testaceis, fasciis duabus
albidis, strigis quatuor undatis maculisque nigris.

A very uncommon Insect, and not noticed by any author.

FIG.

FIG. IV.

PHALÆNA LEEANA,

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings pale, yellowish, with a brown spot in the middle.

PHALÆNA LEEANA: alis pallidis: macula centrali fusca.

Gmel. Linn. Syst. Nat. p. 2497.

Fab. Spec. Insect. 2. p. 276. n. 2.

Taken in June and July. Not uncommon.

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F I G. II.

NECYDALIS SIMPLEX.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings testaceous : legs simple.

NECYDALIS SIMPLEX : elytris testaceis, pedibus simplicibus.—

Fab. spec. Inf. 1. p. 264. sp. 9.*Gmel. T.* 1. p. 4. 1881. 10.*Cantharis phthyfica* : *Scop. Ent. Carn.* 144.

Supposed by Gmelin to be a variety of *Necydalis podagrariæ*.

P L A T E CCCLVIII.

FIG. I.

NECYDALIS HUMERALIS.

GENERIC CHARACTER.

Antennæ fetaceous or filiform : wing-cafes less than the wings, and either narrower or shorter than the abdomen. Tail simple.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wing-cafes narrow, and tapering to a point, black, yellow at the base.

NECYDALIS HUMERALIS: elytris nigris basi flavis.—*Fab. spec. Inf.* 1. p. 263. *sp.* 5.

NECYDALIS HUMERALIS.—*Gmel. T.* 1. p. 4. p. 1880. *sp.* 18.

Necydalis (muralis) elytris subulatis fusca, humeris flavis, pedibus simplicibus.—*Forst. nov. inf. sp.* 1. p. 48. n. 48.

A scarce species, described by Fabricius and Gmelin as a native of this country.

FIG.



P L A T E CCCLIX.

PHALÆNA TRITOPHUS.

ASPEN PROMINENT MOTH.

GENERIC CHARACTER

Antennæ taper from the base : wings in general deflected when at rest. Fly by Night.

SPECIFIC CHARACTER.

Wings deflected, with a prominent tuft or tooth on the posterior margin ; colour brown, clouded, with a ferruginous lunar mark surrounded by a white ring in the middle.

PHALÆNA TRITOPHUS : alis deflexis dorso dentatis fusco nebulosis : lunula media ferruginea alba cincta. *Fab. Ent. Syst. T. 3. p. 1. p. 448. sp. 108.*

The larva of this fine Insect is green, with a brown head, obtuse tail, and three elevations or gibbosities on the back. It feeds on the *Populo tremulo*, from whence we have deduced its English name of Aspen Prominent Moth.

Phalæna tritophus is extremely scarce in this country.





P L A T E CCCLX.

FIG. I.

P H A L Æ N A E R I C Æ.

TRANSVERSE-STREAK HEATH MOTH.

GENERIC CHARACTER.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER.

Anterior wings brown, with undulated streaks, spots, and little lines of white : posterior wings pale.

P H A L Æ N A E R I C Æ : alis anticis fuscis : strigis duabus undatis maculis ordinariis lineolisque albis, posticis pallidis.

A non-descript species of the noctua family, and very rare. Found on heaths, and hence named by us Ericæ.

FIG. II.

P H A L Æ N A L I N E O L A,

SHORT-LINE MOTH.

SPECIFIC CHARACTER.

Antennæ wings ferruginous grey, with undulated streaks : a small oblique line in the middle, and a row of brown points along the exterior margin.

P H A L Æ N A L I N E O L A : alis anticis griseo-ferrugineis : strigis undatis
lineola obliqua in medio punctisque postice
fuscis.

More frequent than the preceding species, and seems to be figured in the works of Ernst and Esper, but certainly is not described by any systematic author.

The colour varies in different specimens from ferruginous to greyish or livid colour.

FIG.

F I G. III.

P H A L Æ N A M A P P A.

MAP-WING SWIFT MOTH.

S P E C I F I C C H A R A C T E R.

Wings brown, with large irregular waved livid marks, and four distinct whitish dots near the apex.

PHALÆNA MAPPA: alis fuscis: lituris magnis irregularibus lividis punctisque quatuor postice albidis.

A Moth of the *Hepialus* tribe, a new genus in the Fabrician System, including only ten species, neither of which agrees with our Insect; there is also every reason to apprehend it is not described by any other Author.

In the Linnæan System, this Insect can only be regarded as a family of the *Phalæna* tribe. The English collectors have denominated this family Swifts, as noticed already in the descriptions of *Humuli* and *Hecta*, (plate 274. fig. 1, 2, 3.)—The present Insect may be considered as one of the rarest English undescribed species, and the mazy windings of the numerous spots and undulations on the anterior wings, immediately suggest the appropriate specific name of *Mappa*.

L I N N Æ A N I N D E X

TO

V O L. X.

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—— <i>nigro-lineata</i>	-	-	-	353	1.
<i>Necydalis simplex</i>	-	-	-	358	2.
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